In the Claims

1. (currently amended) System for low-interference signal transmission of a transmitter output signal ~~and particularly of a digital signal from~~ generated by a transmitter that generates a transmitter output signal that includes a carrier signal and a data signal and sent to a receiver ~~spatially separate therefrom, which are preferably mobile relative to each other~~, via a ~~line-bound, a contacting and/or a contact-free~~ transmission circuit, ~~particularly in revolving transmitters~~ the transmitter being movable relative to the receiver,

characterized in that a modulator unit modulates at least a portion of the transmitter output signal ~~the signal to be transmitted, the carrier signal of the transmitting means in the transmitter or the transmitter output signal~~ at substantially any ~~optional~~ site in and along the transmission circuit independently ~~of the~~ a modulation technique selected for the purpose of signal transmission, such that ~~the~~ an output signal spectrum of the transmitter will be ~~spread~~ substantially distributed ~~and hence~~ so that ~~the~~ a mean spectral power density of the transmitter output signal will be reduced.

2. (currently amended) System according to Claim 1, characterized in that the data signal ~~to be transmitted~~, the carrier signal ~~of the transmitting means in the transmitter~~ or the transmitter output signal is modulated at substantially any ~~optional~~ site of the transmission circuit, independently ~~of~~ the transmission cycle, ~~in~~ such ~~a way~~ that ~~the~~ a line spectrum of the transmitter output signal ~~will be spread~~ is substantially distributed so as to reduce the mean spectral power density by filling ~~the~~ gaps between ~~the~~ individual signal lines.

3. (previously amended) System according to Claim 1, characterized in that a controller serves to control said modulator unit.

4. (previously amended) System according to Claim 1, characterized in that the transmitter comprises a clock generator.

5. (currently amended) System according to Claim 4, characterized in that said modulator unit controls said clock generator appropriately for ~~spreading~~ substantially distributing the line spectrum.

6. (original) System according to Claim 5, characterized in that said modulator unit subjects the cycle frequency of said clock generator to frequency modulation.

7. (currently amended) System according to Claim 6, characterized in that said clock generator comprises a VCO as a frequency-determining element.

8. (original) System according to Claim 7, characterized in that said control unit adjusts said VCO.

9. (currently amended) System according to Claim 1, characterized in that said modulator unit subjects the signal to be transmitted, which ~~is~~ comprises a digital signal ~~in particular~~, to frequency, phase or amplitude modulation.

10. (currently amended) System according to Claim 1, characterized in that said modulator unit subjects said carrier signal of the transmitting means in the transmitter or said transmitter output signal at substantially any ~~optional~~ site along the transmission circuit to frequency or phase modulation, respectively, independently of the modulation technique selected for the purpose of signal transmission.

11. (previously amended) System according to Claim 1, characterized in that in the event of a pulsed carrier signal of the transmitter or a pulsed transmitter output signal a modulator unit shifts or delays, respectively, individual signal edges in proportion to a signal defined by an additionally provided modulation signal generator towards earlier or later points of time.

12. (original) System according to Claim 11, characterized in that said modulator unit comprises a delay control means for analyzing said transmitter output signal and for controlling a delay circuit which causes said shift or delay, respectively.

13. (original) System according to Claim 12, characterized in that said delay control means comprises a PLL means and said delay circuit comprises a flip-flop circuit.

14. (previously amended) System according to Claim 1, characterized in that said transmitter comprises a PLL means.

15. (original) System according to Claim 14, characterized in that the modulation variation of said modulator unit is covered by the control range of said PLL means of said transmitter.

16. (previously amended) System according to Claim 1, characterized in that data coding by means of pseudo random noise is performed in addition to the modulation by said modulator unit.

17. (currently amended) System according to Claim 1, characterized in that a controller is provided in said receiver, which controls the receiver in synchrony with the modulation by said modulator unit in said transmitter or at <u>substantially</u> any ~~optional~~

site of the transmission circuit such that the received signal in said receiver ~~can be~~ is processed at least without this additional modulation, with the synchronization between said transmitter or said transmission circuit, respectively, and said receiver being adapted for optional implementation via said modulation signal or even via another signal jointly available for said transmitter or transmission circuit, respectively, and said receiver.

18. (previously amended) System according to Claim 1, characterized in that an additional transmission circuit is provided between said transmitter or transmission circuit, respectively, and said receiver for the transmission of an additional synchronization signal for controlling the modulation of said transmitter or transmission circuit, respectively, and said receiver.

19. (currently amended) Method of low-interference signal transmission of a transmitter output signal ~~and a digital signal in particular from~~ generated by a transmitter that includes a carrier signal and a data signal and is sent to a receiver ~~spatially separate therefrom, which are preferably mobile relative to each other,~~ via a ~~line-bound, a contacting and/or a contact-free~~ transmission circuit, ~~particularly in revolving transmitters~~ the transmitter being movable relative to the receiver,
characterized by modulating at least a portion of the transmitter output signal ~~a modulation of the signal to be transmitted, of the carrier signal of the transmitting means in the transmitter, or the transmitter output signal at any optional~~ at substantially any site in and along ~~of~~ the transmission circuit~~, which is performed~~ by a modulation unit independently ~~of the~~ a modulation technique selected for the purpose of signal transmission, for spreading the output signal spectrum of the transmitter and ~~hence for~~ reducing the spectral power density of said transmitter output signal.

20. (currently amended) Method according to Claim 19, characterized in that the reduction of the mean spectral power density is performed by filling ~~the~~ gaps between ~~the~~ individual signal lines.

21. (previously amended) Method according to Claim 19, characterized by controlling said modulator unit by means of a controller.

22. (previously amended) Method according to Claim 19, characterized in that said transmitter comprises a clock generator.

23. (currently amended) Method according to Claim 22, characterized by ~~appropriate~~ controlling of said clock generator by means of said modulator unit for ~~spreading~~ substantially distributing the line spectrum.

24. (original) Method according to Claim 23, characterized by frequency modulation of the cycle frequency of said clock generator by means of said modulator unit.

25. (original) Method according to Claim 24, characterized in that said clock generator comprises a VCO as frequency-determining element.

26. (original) Method according to Claim 25, characterized by the adjustment of said VCO by means of said controller.

27. (currently amended) Method according to Claim 19, characterized in that said modulator unit subjects the signal to be transmitted, which ~~is~~ comprises a digital signal ~~in particular~~, to frequency, phase or amplitude modulation.

28. (currently amended) Method according to Claim 19, characterized in that said modulator unit subjects said carrier signal of the transmitting means of said transmitter or said transmitter output signal at substantially any ~~optional~~ site along the transmission circuit to frequency or phase modulation, respectively, independent~~ly~~ of the modulation technique selected for the purpose of signal transmission.

29. (currently amended) Method according to Claim 19, characterized in that in the event ~~of~~ a pulsed carrier signal ~~or said transmitter~~ or a pulsed transmitter output signal is used, ~~a~~ the modulator unit shifts or delays, respectively, individual signal edges in proportion to a signal defined by an additionally provided modulation signal generator towards earlier or later points of time.

30. (currently amended) Method according to Claim 19, characterized in that said modulator unit comprises a delay control means for analyzing the transmitter output signal and for controlling a delay circuit, which causes ~~the~~ a shift or delay, respectively.

31. (currently amended) Method according to Claim ~~19~~ 30, characterized in that said delay control means comprises a PLL means and said delay circuit comprises a flip-flop circuit.

32. (previously amended) Method according to Claim 19, characterized in that said transmitter comprises a PLL means.

33. (currently amended) Method according to Claim ~~19~~ 32, characterized in that ~~the~~ a modulation variation of said modulator unit is covered by ~~the~~ a control range of the PLL means of said transmitter.

34. (previously amended) Method according to Claim 19, characterized in that data coding is performed by means of pseudo random noise in addition to the modulation by said modulator unit.

35. (currently amended) Method according to Claim 19, characterized in that a controller is provided in said receiver, which controls the receiver in synchrony with the modulation by said modulator unit in said transmitter or at substantially any ~~optional~~ site along said transmission circuit, such that the received signal in the receiver ~~can be~~ is processed at least without this additional modulation, with the synchronization between said transmitter or transmission circuit, respectively, and said receiver ~~can be~~ is executed optionally via said modulation signal or ~~even~~ via another signal jointly available for said transmitter or transmission circuit, respectively, and said receiver.

36. (previously amended) Method according to Claim 19, characterized in that an additional transmission circuit is provided between said transmitter or transmission circuit, respectively, and said receiver, via which an additional synchronization signal is transmitted for controlling the modulation of said transmitter or transmission circuit, respectively, and said receiver.

37. (new) The system according to Claim 1 wherein the transmission circuit is selected from the group consisting of a line-bound transmission circuit, a contacting transmission circuit, a contact-free transmission circuit, or combinations thereof.

38. (new) The system according to Claim 1 wherein the signal comprises a digital signal.

39. (new) A system for transmitting a digital data signal comprising:

a first stationary part;

a second movable part;

a transmitter for generating a transmitter output signal that includes a carrier signal and the data signal;

a receiver for receiving the transmitter output signal;

a transmission circuit coupling said transmitter to said receiver and for transmitting the transmitter output signal between said first stationary part and said second movable part;

a modulator coupled to said transmission circuit for generating a modulation signal;

a controller coupled to and controlling said modulator to generate the modulation signal and to apply the modulation signal at substantially any site in and along the transmission circuit to modulate the transmitter output signal so that a signal spectrum of the transmitter output signal is substantially distributed and a mean spectral power density of the transmitter output signal is reduced.

40. (new) The system according to Claim 39 wherein the transmission circuit is selected from the group consisting of a line-bound transmission circuit, a contacting transmission circuit, a contact-free transmission circuit, or combinations thereof.